

## New Tool for Use in Fighting Wildfire in Remote Areas

### Mobile Pump/Tank Combination Modules

A new tool is being used for fighting fires in remote, unroaded areas. These mobile pump/tank modules are self contained water delivery system with a pump, tank and hose system. It can be flown into areas with medium (Type 2) helicopters or larger. The unit is self-leveling, allowing it to be used in more places than traditional tanks. There are several brands available.

#### Klump Pumps

In his early years Jim Klump was a smoke jumper out of Redding, California, and later worked in fire and fuels management for the Klamath National Forest. He was a Section Chief for one of California Type 1 incident management teams and later retired as Division Chief in Truckee, California. Throughout his career, he kept hearing **at** After Action Reviews on wildfires the same thing “if we had only had some water.” He believed when on initial attack on spot fires in wilderness or remote and unroaded areas... “a little water in the right place goes a long way.” He had an idea for a water delivery system that he thought would help solve this problem.

In 2003, Jim made his first prototype and has since perfected his “Klump Pump” system. He has 11 units available for use today. As of this article, seven of his Klump Pumps are in use on the Klamath National Forest at the Happy Camp and Man Fires in Northern California. This fire season his pumps have been dispatched to four fires in Oregon and to **nine** assignments nationally.



***Klump Pump - made by James Klump***

The Klump Pump will hold 1000 gallons of water. The self contained unit is equipped with a 13hp motor, 2” suction capacity, a complement of hoses including; 1000 ft. of 1 ½ inch, 800 ft. of 1”, 400 ft. of ¾” and 24 ft. of 2” suction hose. It is also capable of delivering foam or gel type retardant. It has a mechanical self leveling system. It can be driven or flown to a site. It weighs 1600 lbs. and can be dropped in with a “Type II” or larger helicopter.

## MIST Tanks

Just southeast of Prospect, Oregon, a similar, but more recently developed mobile pump/tank module, or in this case “Minimal Impact Suppression Tanks” (MIST), are being used to suppress a wildfire in the Sky Lakes Wilderness Area. Two MIST units were deployed on the 790 Fire aiding the 440 firefighters “spiked out” (A remote camp usually near a fireline, and lacking the logistical support that a larger fire camp would have) in the Wilderness to go “direct” (Fire tactics applied directly to unburned fuels. This can be water, chemicals or physically with manpower) to contain the fire and extend a hose network across the western flank.



***Minimal Impact Suppression Tank or MIST - made by American Fire Support***

## Benefits

Having a water source makes building a fireline directly against the fire’s edge safer in these remote areas. For mop-up operations, instead of using helicopters to cool hot spots along the burning edge, firefighters can use these mobile pump/tank modules as a ready source of water to secure the containment line with less environmental impacts. This can result in less helicopter use, expense and exposure to hazard since targeted mop-up is better done on the ground than from the air.

These systems can help firefighters to avoid relying on water from sensitive high elevation lakes and streams, especially during droughty years like 2014.



***Mist unit positioned on the southwest flank of the 790 Fire***